

REMARKS

Claims 31 – 34, 37 – 41, 43 – 46, 48, 50, 52 – 54, and 58 are pending. Claims 35, 36, 42, 47,, 49, 51, and 55 – 57 have been cancelled. Claims 31, 39 – 41, 43, 46, 48, 50, and 52 – 54 have been amended. No new matter has been added.

Reexamination and reconsideration is respectfully request.

In the November 13, 2006 Office Action, the Examiner stated that claims 36, 43, 48, 52, and 58 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The applicants have rewritten claims 43, 48, 52, and 58 in independent form including all of the limitations of the base claim and any intervening claims and respectfully submit that claims 43, 48, 52, and 58 are in condition for allowance. The applicants have included the limitations of claim 36 and intervening claim 35 into claim 31. Accordingly, the applicants submit that claim 31 is in condition for allowance. Claims 32 – 34 and 37 – 40 depend, indirectly or directly, on claim 31. Accordingly, applicants respectfully submit that claims 31 – 24 and 37 – 40 are also in condition for allowance.

In the November 13, 2006 Office Action, the Examiner rejected claims 31 – 35, 37 – 42, 44 – 47, 49 – 51, and 53 – 57 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,427,173 to Boucher (“the Boucher reference”) in view of U.S. Patent No. 6,049,882 to Paver (“the Paver reference”). This rejection is respectfully traversed in so far as it is applicable to the presently pending claims.

Claim 46, as amended, recites:

A receiver for managing energy usage of a processor in the receiver, comprising:

a protocol state machine to receive a packet from a transmitter over a data communication network and to process and verify the packet;  
a processor coupled to the protocol state machine; and  
an application buffer coupled to the protocol state machine to store the packet,

**wherein the protocol state machine transmits an acknowledgment of receipt of the data packet to the transmitter, the protocol state machine manages a power level of the processor in the receiver based on a utilized capacity of the application buffer, the processor in the receiver switching to a high-power, high clock rate mode from a low power, low clock rate mode when the application buffer reaches a threshold.**

The Boucher reference does not disclose, teach, or suggest the receiver of claim 46, as amended. As noted by the Examiner, the Boucher reference does not disclose that a protocol state machine manages a power level of a processor based on the utilized capacity of the buffer. (*Office Action, page 2*). The applicants agree with the Examiner and respectfully submit that claim 46 distinguishes over the Boucher reference.

The Paver reference does not make up for the deficiencies of the Boucher reference. The Examiner states that the Paver reference discloses that a protocol state machine manages a power level of the processor based on a utilized capacity of a buffer by controlling the power consumption of the processor based on the queue length of the sender for transmitting data. (*Office Action, page 3*). The applicants understand that the Paver reference discloses the controlling of a power level of a processor in a transmitting device based upon an instruction queue length. However, this is not the same as **a receiver for managing energy usage of a processor in the receiver including the protocol state machine managing a power level of the processor in the receiver based on a utilized capacity of the application buffer,**

**the processor in the receiver switching to a high-power, high clock rate mode from a low power, low clock rate mode when the application buffer reaches a threshold, as is recited in claim 46.**

First, the Paver reference is disclosing managing a processor in a transmitting device and not the managing of a power level of a processor in a **receiver based on a utilized capacity of the application buffer**. Further, the Paver reference discloses using a counter to count the number of instructions waiting in a queue and then reducing or increasing a cycle time to process the instructions. (*Paver, col. 6, lines 1 – 14*). This results in higher or lower power consumption by the processor. This is not the same as a **receiver for managing energy usage of a processor in the receiver, the processor in the receiver switching to a high-power, high clock rate mode from a low power, low clock rate mode when the application buffer reaches a threshold.**

The Paver reference does not disclose that the receiver protocol is in a low power, low clock rate state, as is recited in claim 46. Further, the Paver reference is not disclosing **switching to a high-power, high clock rate mode from a low power, low clock rate mode when the application buffer reaches a threshold**. In contrast, the Paver reference is talking about using a counter and variably adjusting a cycle time based on the counter. There is no disclosure of switching between two states, i.e., a low power, low clock rate to a high power, high clock rate. Accordingly, applicants respectfully submit that claim 46, as amended, distinguishes over the Paver / Boucher combination.

Independent claims 41 and 50 recite limitations similar to independent claim 46. Accordingly, applicants respectfully submit that claims 41 and 50 distinguish over the Paver / Boucher combination. Claims 44 – 45, 49, and 53 – 54, depend, indirectly or directly, on claims 41, 46, and 50, respectively. Accordingly, applicants respectfully submit that claims 44 – 45, 49, and 53 – 54 distinguish over the Paver / Boucher combination for the same reasons as discussed above in regard to claim 46.

Applicants believe that the claims are still in condition for allowance, and a favorable action is respectfully requested. If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles telephone number (213) 488-7100 to discuss the steps necessary for placing the application in condition for allowance should the Examiner believe that such a telephone conference would advance prosecution of the application.

Respectfully submitted,

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